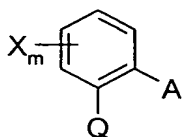


We claim:

1. A mixture, comprising

5 a) a compound of the formula I



in which

X is halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl or trifluoromethyl;

10

m is 0 or 1;

Q is C(=CH-CH<sub>3</sub>)-COOCH<sub>3</sub>, C(=CH-OCH<sub>3</sub>)-COOCH<sub>3</sub>,  
C(=N-OCH<sub>3</sub>)-CONHCH<sub>3</sub>, C(=N-OCH<sub>3</sub>)-COOCH<sub>3</sub> or  
N(-OCH<sub>3</sub>)-COOCH<sub>3</sub>;

15

A is -O-B, -CH<sub>2</sub>O-B, -OCH<sub>2</sub>-B, -CH=CH-B, -C≡C-B, -CH<sub>2</sub>O-N=C(R<sup>1</sup>)-B or  
-CH<sub>2</sub>O-N=C(R<sup>1</sup>)-C(R<sup>2</sup>)=N-OR<sup>3</sup>, where

20

B is phenyl, naphthyl, 5-membered or 6-membered hetaryl or 5-membered or 6-membered heterocyclyl which contains one to three nitrogen atoms and/or one oxygen or sulfur atom or one or two oxygen and/or sulfur atoms, where the ring systems are unsubstituted or substituted by one to three radicals R<sup>a</sup>:

25

R<sup>a</sup> is cyano, nitro, amino, aminocarbonyl, aminothiocarbonyl, halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfoxyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy, C<sub>1</sub>-C<sub>6</sub>-alkyloxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-C<sub>1</sub>-C<sub>6</sub>-alkylamino, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminothiocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminothiocarbonyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, phenyl, phenoxy, benzyl, benzyloxy, 5- or 6-membered heterocyclyl, 5- or 6-membered hetaryl, 5- or 6-membered hetaryloxy, C(=NOR')-OR" or OC(R')<sub>2</sub>-C(R")=NOR",

30

35

where the cyclic radicals for their part are unsubstituted or substituted by one to three radicals R<sup>b</sup>:

- 5 R<sup>b</sup> is cyano, nitro, halogen, amino, aminocarbonyl, aminothiocarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfoxyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-C<sub>1</sub>-C<sub>6</sub>-alkylamino, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminothiocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminothiocarbonyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkenyl, phenyl, phenoxy, phenylthio, benzyl, benzyloxy, 5- or 6-membered heterocyclyl, 5- or 6-membered hetaryl, 5- or 6-membered hetaryloxy or C(=NOR')-OR";
- 10
- 15 R' is hydrogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl or C<sub>1</sub>-C<sub>4</sub>-haloalkyl;
- 20 R" is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>3</sub>-C<sub>6</sub>-haloalkenyl or C<sub>3</sub>-C<sub>6</sub>-haloalkinyl;
- 25 R<sup>1</sup> is hydrogen, cyano, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy;
- 30 R<sup>2</sup> is phenyl, phenylcarbonyl, phenylsulfonyl, 5- or 6-membered hetaryl, 5- or 6-membered hetarylcarbonyl or 5- or 6-membered hetarylsulfonyl, where the ring systems are unsubstituted or substituted by one to three radicals R<sup>a</sup>,
- 35 is C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>2</sub>-C<sub>10</sub>-alkinyl, C<sub>1</sub>-C<sub>10</sub>-alkylcarbonyl, C<sub>2</sub>-C<sub>10</sub>-alkenylcarbonyl, C<sub>3</sub>-C<sub>10</sub>-alkinylcarbonyl, C<sub>1</sub>-C<sub>10</sub>-alkylsulfonyl or C(R')=NOR", where the hydrocarbon radicals of these groups are unsubstituted or substituted by one to three radicals R<sup>c</sup>:
- 40 R<sup>c</sup> is cyano, nitro, amino, aminocarbonyl, aminothiocarbonyl, halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfoxyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-C<sub>1</sub>-C<sub>6</sub>-alkylamino, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminothiocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-

alkylaminothiocarbonyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, 5- or 6-membered heterocyclyl, 5- or 6-membered heterocyclyloxy, benzyl, benzyloxy, phenyl, phenoxy, phenylthio, 5- or 6-membered hetaryl, 5- or 6-membered hetaryloxy or hetarylthio, where the cyclic groups for their part may be partially or fully halogenated or may carry one to three radicals R<sup>a</sup>; and

R<sup>3</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl or C<sub>2</sub>-C<sub>6</sub>-alkinyl, where the hydrocarbon radicals of these groups may be unsubstituted or substituted by one to three radicals R<sup>c</sup>;

and

- b) one or more ethylene modulators (II) selected from the group consisting of:
- ethylene biosynthesis inhibitors which inhibit the conversion of S-adenosyl-L-methionine into 1-aminocyclopropane-1-carboxylic acid (ACC), such as derivatives of vinylglycine, hydroxylamines, oxime ether derivatives;
  - ethylene biosynthesis inhibitors which block the conversion of ACC into ethylene, selected from the group consisting of: Co<sup>++</sup> or Ni<sup>++</sup> ions in plant-available forms; phenolic radical scavengers such as *n*-propyl gallate; polyamines, such as putrescine, spermine or spermidine; structural analogs of ACC, such as  $\alpha$ -aminoisobutyric acid or L-aminocyclopropene-1-carboxylic acid; salicylic acid or acibenzolar-S-methyl; structural analogs of ascorbic acid which act as inhibitors of ACC oxidase, such as prohexadione-Ca or trinexapac-ethyl; and triazolyl compounds such as paclobutrazol or uniconazole as inhibitors of cytochrome P-450-dependent monooxygenases whose main action is to block the biosynthesis of gibberellins;
  - inhibitors of the action of ethylene selected from the group consisting of: structural analogs of ethylene such as 1-methylcyclopropene or 2,5-norbornadiene and 3-amino-1,2,4-triazole or Ag<sup>++</sup> ions

in a weight ratio of I to II of from 20 : 1 to 0.05 : 1.

2. A mixture as claimed in claim 1 where the compound of the formula I is a strobilurin derivative selected from the group consisting of azoxystrobin, dimoxystrobin, fluoxastrobin, kresoxim-methyl, metominostrobin, oryastrobin, trifloxystrobin, picoxystrobin or pyraclostrobin.

3. A mixture as claimed in claim 1 where the compound of the formula I is pyraclostrobin.
- 5 4. A mixture as claimed in claim 1 where the ethylene modulators are  $\text{Co}^{++}$  ions, aminoethoxyvinylglycine, aminooxyacetic acid, prohexadione-Ca, trinexapac-ethyl,  $\alpha$ -aminoisobutyric acid, salicylic acid or 3-amino-1,2,4-triazole.
- 10 5. A mixture as claimed in claim 1 where the ethylene modulators are  $\text{Co}^{++}$  ions.
6. A mixture as claimed in claim 1 where the ethylene modulators is prohexadione-Ca.
- 15 7. A mixture as claimed in claim 1 where the ethylene modulator is salicylic acid.
8. A mixture as claimed in claim 1 where the ethylene modulators are prohexadione-Ca together with  $\text{Co}^{++}$  ions.
- 20 9. A mixture as claimed in any of claims 1 to 8 which additionally comprises an azole III selected from the group consisting of bromoconazole, cyproconazole, epoxiconazole, fenbuconazole, fluquiconazole, flusilazole, metconazole, myclobutanil, propiconazole, prochloraz, prothioconazole, tebuconazole or triticonazole.
- 25 10. A mixture as claimed in any of claims 1 to 9 which additionally comprises a surfactant selected from the group consisting of: polyoxyethylene sorbitan monolaurate, alkylphenoxy polyethoxy ethanol, fatty alcohol, fatty alcohol alkoxylate and sodium dodecylsulfate.
- 30 11. A method for controlling rust infections in legumes, which comprises treating the above-ground plant parts of the legumes with an aqueous preparation of a mixture as claimed in any of claims 1 to 10.
- 35 12. A process as claimed in claim 11, wherein rust infection on leaves and fruits of soya plants is controlled.
13. A process as claimed in claim 11, wherein the rust infection is caused by *Phakopsora pachyrhizi* and/or *Phakopsora meibomia*.
- 40 14. A process for increasing the yield and quality of legumes by using mixtures as claimed in any of claims 1 to 10.

15. A method for increasing the yield and quality of legumes applying an effective amount of a mixture as claimed in any of claims 1 to 10.
- 5 16. A method for reducing the ethylene evolution of plants by applying an effective amount of a mixture as claimed in claims 1 to 10.
17. A method for reducing undesired defoliation of crop plants by applying an effective amount of a mixture as claimed in claims 1 to 10.
- 10 18. A method for controlling harmful plant pathogens by applying an effective amount of  $\text{Co}^{++}$  ions in plant-available form.